

REMARKS

In the non-final Office Action mailed on February 7, 2006, the Examiner rejected claims 10, 11, 14, 17 and 19 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,649,538 to *Cheng et al.* ("*Cheng*").

By this Amendment, Applicants have amended claim 10 to more appropriately define their invention. Support for the changes to claim 10 may be found in the specification at, for example, page 6, lines 5-17.

Claims 1-20 are pending in this application, of which claims 10, 11, 14, 17 and 19 are under examination, and claims 1-9, 12, 13, 15, 16, 18 and 20 are withdrawn from consideration.

Applicants respectfully traverse the Examiner's rejection of claims 10, 11, 14, 17 and 19 as being anticipated by *Cheng*. Amended claim 10, for example, is not anticipated by *Cheng* because the reference fails to teach each and every limitation of the claim. In particular, *Cheng* at least fails to teach the claimed "heating the semiconductor region and silicon oxide film in a helium gas atmosphere, said atmosphere not including a helium plasma" (emphasis added), as recited in amended claim 10.

Cheng apparently discloses a method for nitriding gate oxides which may include a "surface preparation plasma treatment" during which the surface of a gate oxide 22 is treated in a "plasma source gas including helium." (Col. 5; lines 30-49; and FIG. 3, step 305.) Because *Cheng* discloses treating gate oxide 22 with a plasma including helium,

the reference does not disclose the claimed "atmosphere not including a helium plasma" (emphasis added). Accordingly, *Cheng* certainly fails to teach "heating the semiconductor region and silicon oxide film in a helium gas atmosphere, said atmosphere not including a helium plasma," as recited in amended claim 10.

Applicants further note that the Examiner alleges that various equations disclosed in the Wolf reference provide evidence that "Helium is introduced into the interface portion between the semiconductor region and the silicon oxide film or within the silicon oxynitride film." (Office Action at page 4.) Applicants respectfully submit, however, that the Wolf reference is also silent as to the claimed "heating the semiconductor region and silicon oxide film in a helium gas atmosphere, said atmosphere not including a helium plasma," as recited in amended claim 10.

Applicants, therefore, respectfully request that the Examiner withdraw the rejection of claim 10 under 35 U.S.C. § 102(e) and allow the claim, as well as claims 11, 14, 17 and 19, which are also allowable at least due to their dependence from claim 10.

Conclusion

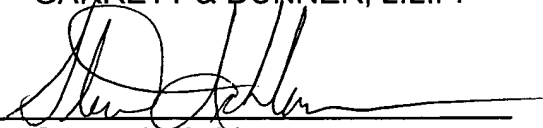
In view of the foregoing, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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